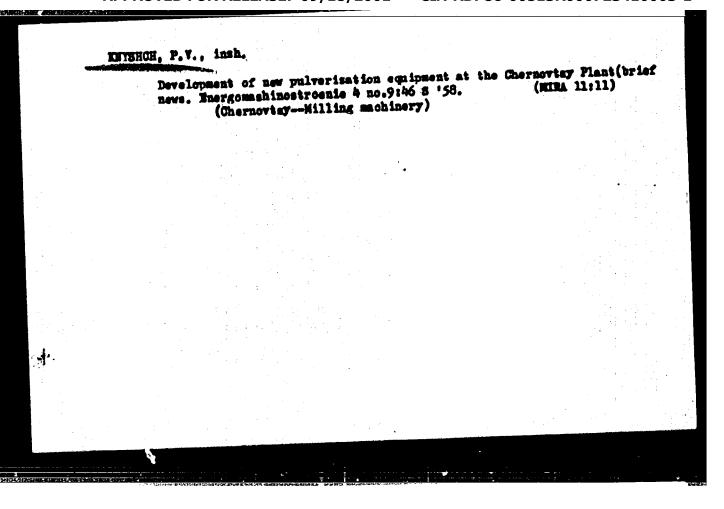
"APPROVED FOR RELEASE: 09/18/2001 CIA-RDP86-00513R000723410003-1

PAVLYUCHENKO, H.M.; KHYSH, V.L. Determination of flotation activity from the angle of dip of air bubbles. Dokl. AN BECR 8 no. 6:390-393 Js 164. 1. Institut obshehey i neorganicheskey knimit Al BSSR.



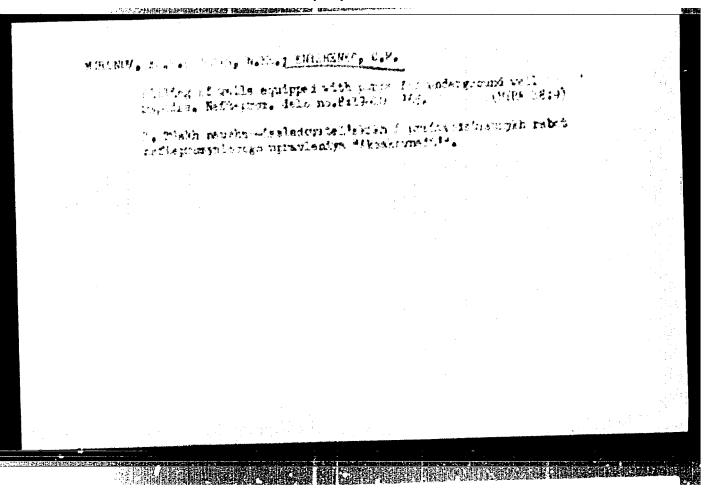
KAGAN, YA.M.; KAMALOV, R.R.; ANTROPOV, A.D.; KNYSHENKO, G.N.

Density of the gas oil mixture in the annular space of wells equipped with sinking centrifugal pumps. Nefteprom. delo no.8:14-17 '64. (MIRA 17:12)

1. Tšekh nauchno-iseledovateliskikh i proisvodstvennykh rabot neftepromyslovoyo upravleniya "Aksakovnefti".

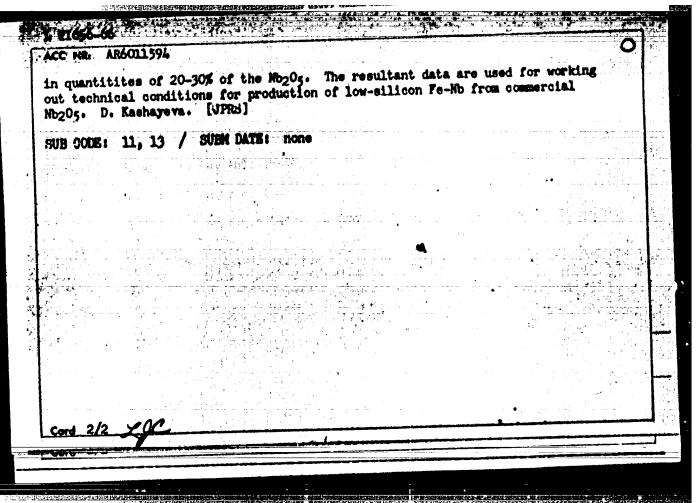
"APPROVED FOR RELEASE: 09/18/2001

CIA-RDP86-00513R000723410003-1



AUTHOR: Knyshev, E. A.; Konev, A. F.; Ribinshteyn, Ye. A. ORG: none TITLE: Optimum conditions for melting ferronicbium from commercial miobium pentoxide SCURCE: Ref. sh. Metallurgiya, Abs. 12V228 REF SOURCE: Sb. tr. Klyuchevsk. s-da ferrosplavov, vyp. 1, 1965, 69-73 TOPIC TAGS: miobium alloy, iron alloy, miobium compound, metal melting, slag, metal extraction TRANSLATION: The authors studied the effects which the quantity of reducing agent in the charge as well as the slag and metal com- position have on the technical and economic indices of alumothermic Fe-Nb melting. It is found that maximum Nb extraction (85%) is reached when Al fed to the charge is 110% of the theoretically re- quired amount. Lime was added to the charge in quantities up to 60% of the Nb20s to study the effect of slag composition. Maximum Nb extraction (69.2%) was reached with the addition of lime to the charge in quantities of 25-30% of the Nb20s. A further increase in lime concentration lowers the specific heat of the process and reduces the extraction of Nb. Maximum extraction of Nb into the ingot (96%) was observed with the addition of Fe ore to the charge Cord 1/2	AUTHOR: Knyshev, E. A.; Konev, A. F.; Rubinshteyn, Ie. A. ORG: none TITIE: Optimum conditions for melting ferronichium from commercial niobium pentexide SCURCE: Ref. sh. Metallurglys, Abs. 12V228 REF SOURCE: Sb. tr. Kluuchevsk. s-da ferrosplavov, vyp. 1, 1965, 69-73 TOPIC TAGS: niobium alloy, iron alloy, niobium compound, metal melting, slag, metal extraction TRANSLATION: The authors studied the effects which the quantity of reducing agent in the charge as well as the slag and metal com- position have on the technical and economic indices of alumothermic Fe-Nb melting. It is found that maximum Nb extraction (85%) is reached when Al fed to the charge is 110% of the theoretically re- quired amount. Lime was added to the charge in quantities up to 60% of the Nb ₂ O ₂ to study the effect of slag composition. Exximum Nb extraction (69.2%) was reached with the addition of lime to the charge in quantities of 25-30% of the Nb ₂ O ₃ . A further increase in lime concentration lowers the specific heat of the process and reduces the extraction of Nb. Maximum extraction of Nb into the ingot (96%) was observed with the addition of Fe ore to the charge	次1.4.2.2.4.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.	- Land Control of the	and tages and
ORG: none TITIE: Optimum conditions for melting ferronichium from commercial michium pentoxide SCURCE: Ref. zh. Metallurgiya, Abs. 127228 REF SOURCE: Sb. tr. Klyuchevsk. z-da ferrosplavov, vyp. 1, 1965, 69-73 TOPIC TAGS: nichium alloy, iron alloy, nichium compound, metal melting, slag, metal extraction TRANSIATION: The authors studied the effects which the quantity of reducing agent in the charge as well as the slag and metal com- position have on the technical and economic indices of alumotherate Pe-Nb melting. It is found that maximum Nb extraction (85%) is reached when Al fed to the charge is 110% of the theoretically re- quired amount. Lime was added to the charge in quantities up to cox of the Nb202 to study the effect of slag composition. Faximum Nb extraction (69.2%) was reached with the addition of lime to the charge in quantities of 25-30% of the Nb204. A further increase in lime concentration lowers the specific heat of the process and reduces the extraction of Nb. Maximum extraction of Nb into the ingot (96%) was observed with the addition of Fe ore to the charge	ORG: none TITLE: Optimum conditions for melting ferronichium from commercial michium pentoxide SCURCE: Ref. sh. Metallurgiya, Abs. 12V228 REF SOURCE: Sb. tr. Kluuchevsk. s-da ferrosplavov, vyp. 1, 1965, 69-73 TOPIC TAGS: nichium alloy, iron alloy, nichium compound, metal melting, slag, metal extraction TRANSIATION: The authors studied the effects which the quantity of reducing agent in the charge as well as the slag and metal com- position have on the technical and economic indices of alumothermic Fe-Nb melting. It is found that maximum Nb extraction (85%) is reached when Al fed to the charge is 110% of the theoretically re- quired amount. Lime was added to the charge in quantities up to 60% of the Nb20g to study the effect of slag composition. Maximum Nb extraction (69.2%) was reached with the addition of lime to the charge in quantities of 25-30% of the Nb20g. A further increase in lime concentration lowers the specific heat of the process and reduces the extraction of Nb. Maximum extraction of Nb into the ingot (96%) was observed with the addition of Fe ore to the charge	21656-66 Eft(n)/RPF(n)-2/MP(t) 17F(s) JD/JO ACC NA: AR6011594 SOURCE C	GOIRST ON OLD TO ON OLD TO THE)31
SOURCE: Ref. sh. Metallurglys, Abs. 12728 REF SOURCE: Sb. tr. Klyuchevsk. x-da ferrosplavov, vyp. 1, 1965, 69-73 TOPIC TAGS: niobium alloy, iron alloy, niobium compound, metal melting, slag, metal extraction TRANSLATION: The authors studied the effects which the quantity of reducing agent in the charge as well as the slag and metal composition have on the technical and economic indices of alumothermic Fe-Nb melting. It is found that maximum Nb extraction (85%) is reached when Al fed to the charge is 110% of the theoretically required amount. Lime was added to the charge in quantities up to 60% of the Nb20% to study the effect of slag composition. Maximum Nb extraction (69.2%) was reached with the addition of lime to the charge in quantities of 25-30% of the Nb20%. A further increase in lime concentration lowers the specific heat of the process and reduces the extraction of Mb. Maximum extraction of Nb into the ingot (96%) was observed with the addition of Fe ore to the charge	TITIE: Optimum conditions for melting ferronichium from commercial miobium pentoxide SCURCE: Ref. wh. Metallurgiya, Abs. 12V228 REF SOURCE: Sb. tr. Klyuchevsk. m-ds ferrosplavov, vyp. 1, 1965, 69-73 TOPIC TAGS: miobium alloy, iron alloy, miobium compound, metal melting, slag, metal extraction TRANSIATION: The authors studied the effects which the quantity of reducing agent in the charge as well as the slag and metal composition have on the technical and economic indices of alumothermic Fe-Nb melting. It is found that maximum Nb extraction (85%) is reached when Al fed to the charge is 110% of the theoretically required amount. Lime was added to the charge in quantities up to 60% of the Nb ₂ O ₅ to study the effect of slag composition. Faximum Nb extraction (89.2%) was reached with the addition of lime to the charge in quantities of 25-30% of the Nb ₂ O ₅ . A further increase in lime concentration lowers the specific heat of the process and reduces the extraction of Mb. Maximum extraction of Mb into the ingot (96%) was observed with the addition of Fe ore to the charge	AUTHOR: Knyshev, B. A.; Konev, A. F.; Rubinshteyn,	, Yo. A. 34	
REF SOURCE: Sb. tr. Kiruchevsk. s-ds ferrosplavov, vyp. 1, 1965, 69-73 TOPIC TAGS: nicbium alloy, iron alloy, nicbium compound, metal melting, slag, metal extraction TRANSIATION: The authors studied the effects which the quantity of reducing agent in the charge as well as the slag and metal composition have on the technical and economic indices of alumothermic Fe-Nb melting. It is found that maximum Nb extraction (85%) is reached when Al fed to the charge is 110% of the theoretically required amount. Lime was added to the charge in quantities up to 60% of the Nb ₂ O ₅ to study the effect of slag composition. Maximum Nb extraction (69.2%) was reached with the addition of lime to the charge in quantities of 25-30% of the Nb ₂ O ₅ . A further increase in lime concentration lowers the specific heat of the process and reduces the extraction of Nb. Maximum extraction of Nb into the ingot (96%) was observed with the addition of Fe ore to the charge	REF SOURCE: Sb. tr. Kiruchevsk. s-da ferrosplavov, vyp. 1, 1965, 69-73 TOPIC TAGS: nichium alloy, iron alloy, nichium compound, metal melting, slag, metal extraction TRANSIATION: The authors studied the effects which the quantity of reducing agent in the charge as well as the slag and metal composition have on the technical and economic indices of alumothermic Fe-Nb melting. It is found that maximum Nb extraction (85%) is reached when Al fed to the charge is 110% of the theoretically required amount. Lime was added to the charge in quantities up to 60% of the Nb ₂ O ₅ to study the effect of slag composition. Maximum Nb extraction (69.2%) was reached with the addition of lime to the charge in quantities of 25-30% of the Nb ₂ O ₅ . A further increase in lime concentration lowers the specific heat of the process and reduces the extraction of Nb. Maximum extraction of Nb into the ingot (96%) was observed with the addition of Fe ore to the charge	TITLE: Optimum conditions for melting ferronichium	m from commercial niobium pentoxd	27
TOPIC TAGS: niobium alloy, iron alloy, niobium compound, metal melting, slag, metal extraction TRANSIATION: The authors studied the effects which the quantity of reducing agent in the charge as well as the slag and metal composition have on the technical and economic indices of alumothermic Fe-Nb melting. It is found that maximum Nb extraction (85%) is reached when Al fed to the charge is 110% of the theoretically required amount. Lime was added to the charge in quantities up to 60% of the Nb20g to study the effect of slag composition. Eaximum Nb extraction (69.2%) was reached with the addition of lime to the charge in quantities of 25-30% of the Nb20g. A further increase in lime concentration lowers the specific heat of the process and reduces the extraction of Nb. Maximum extraction of Nb into the ingot (96%) was observed with the addition of Fe ore to the charge	TOPIC TAGS: niobium alloy, iron alloy, niobium compound, metal melting, slag, metal extraction TRANSIATION: The authors studied the effects which the quantity of reducing agent in the charge as well as the slag and metal composition have on the technical and economic indices of alumothermic Fe-Nb melting. It is found that maximum Nb extraction (85%) is reached when Al fed to the charge is 110% of the theoretically required amount. Lime was added to the charge in quantities up to 60% of the Nb20g to study the effect of slag composition. Eaximum Nb extraction (69.2%) was reached with the addition of lime to the charge in quantities of 25-30% of the Nb20g. A further increase in lime concentration lowers the specific heat of the process and reduces the extraction of Nb. Maximum extraction of Nb into the ingot (96%) was observed with the addition of Fe ore to the charge	REF SOURCE: Sb. tr. Klyuchevsk. E-da ferrosplavov	y, vyp. 1, 1965, 69-73	
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	At the second se	of reducing agent in the charge as well as position have on the technical and economic reached when Al fed to the charge is 110% quired amount. Lime was added to the charge of the Nb ₂ O ₅ to study the effect of so Nb extraction (69.2%) was reached with the charge in quantities of 25-30% of the Nb ₂ O in lime concentration lowers the specific reduces the extraction of Nb. Maximum exingot (96%) was observed with the additional contents.	the slag and detail dom- ic indices of alumothersic No extraction (85%) is of the theoretically re- irge in quantities up to slag composition. Maximum is addition of lime to the idea of the process and itraction of No into the on of Fe ore to the charge	

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STASYUKOV, M.; CHUBAROV, P.; ZAYCHEMKO, I., ratsionalisator; HUTSIMSKIY, V.; VOLOVIK, A.; KNYSHEY, I.; SHTHYMGART, M.

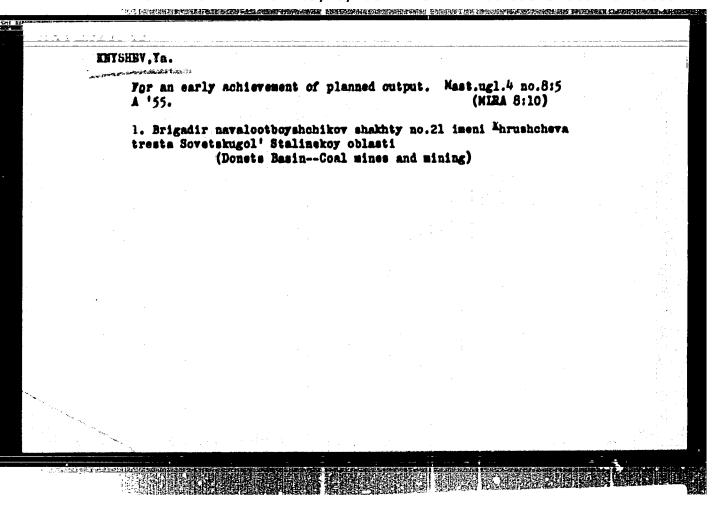
Why are the suggestions of Dnepropetrovsk netal workers so slowly realised? Isobr.i rats. no.11:24-25 N *58. (MIRA 11:12)

1. Dnepropetrovskiy metallurgicheskiy savod im. Petrovskogo (for all except Shteyngart). 2. Starshiy insh. Byuro isobretateley i ratsionalisatorov savoda (for Stasyukov). 3. Zamestitel' predsedatelya savodskogo komiteta (for Chubarov). 4. Zamestitel' sekretarya partiynogo komiteta savodskogo komiteta savodskogo komiteta savodskogo soyusa molodeshi Ukrainy (for Volovik). 6. Sotrudnik kommunisticheskogo soyusa molodeshi Ukrainy (for Volovik). 6. Sotrudnik gasety "Tribuna metaklurga" (for Knychev). 7. Spetsial'nyy korrespondent shurnala "Isobretatel' i ratsionalisator" (for Shteyngart).

(Dnepropetrovsk--Efficiency, Industrial)

APPROVED FOR RELEASE: 09/18/2001 CIA-RDP86-00513R000723410003-1"

UR/0413/66/000/020/0194/0194 SOURCE CODE: ACC NR A76035928 AUTHOR: Arinushkin, L. S., Dumov, V. I./ Knyshev, V. A. / Moskovskiy, V. D./ Polinovskiy, A. Yu./ Sharov, Yu. A. ORG: none TITLE: Pump unit for two-circuit fuel systems for power plants SOURCE: Izobreteniya, promyshlemnyye obraztsy, tovarnyye znaki, no.20, 1966, 194 TOPIC TACS: pump, Tuel system, has circultarfood wystem, fuel feed system ABSTRACI: The proposed pump unit consists of a pump with a low pressure circuit and a pump with a high pressure circuit. To improve its efficiency and to decrease the system's size and weight, the impellers of both pumps are mounted on a common shaft and an annular collector is positioned between the impellers; the collector is connected by ducts... to the low pressure pump outlet duct and to the high pressure pump inlet cavity. In order to improve the anticavitional characteristics of the unit, a variation of this unit is made so that the fuel by-pass from the high pressure circuit runs through a duct which is positioned tangentially to an annular chamber located at the unit inlet. (see . Fig.1). 1/2 Card annular chamber; 10- unit inlet [WA-88] Orig. art. has: 1 figure. CIA-RDP86-00513R000723410003-1" SUB ARBEDVER FORTBELEASE: 0860846901



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	1704-66 EHT(m)/EHA(d)/EHP(t)/EHP(t)/EHP(a)/EHP(b)/EHA(d) LIP(d) 10/EM // UR/0148/65/000/008/0073/0079 // WASTATON	
	AUTHOR: Polukhin, P. L.; Arkhangel'skiy, A. V.; Knyshev, Yu. V.; Masterov, Y.; A.	
	COURCE, IVIIZ. Chernaya metallurgiya, no. 8, 1965, 73-79	
	TOPIC TAGS: bimetal, metal rolling, sheet metal, aluminum, copper, metal cladding (1) ABSTRACT: This study in the rolling of bimetal was conducted to provide information for selection of proper thicknesses of the initial metal sheets to give the ation for selection of proper thicknesses of the initial metal sheets to give the ation for selection of proper thicknesses of the initial ratio of required relative thicknesses in the final bimetal. The effect of the initial ratio of sheet thicknesses and the effect of total thickness on the strain and force parameters of the rolling process were examined using bimetal of aluminum A000 and ters of the rolling process were examined using bimetal of aluminum A000 and	
	ters of the rolling process were examined using bimetal of the ters of the rolling process were examined using bimetal of the ters of the rolling process were examined using bimetal of the term of the compact of the process to make up sandwiches 2, 3, 5, 10, 15 electrolytic copper of equal thickness to make up sandwiches 2, 3, 5, 10, 15 electrolytic copper of equal thickness is which the aluminum: copper thickness and 20 mm thick, and using sandwiches in which the aluminum: copper thickness are reduced as the total varied from 0.13 to 6.70. Deformation irregularities are reduced as the total thickness is reduced to 5 mm. The anomalous increase in irregularities below thickness is reduced to 5 mm.	
	Cord 1/3	
(MSSCE)		STATE

L 1704-66 ACCESSION NR: AP5020978

this thickness was attributed to the greater deformation of aluminum in comparison to copper as sheet thickness is reduced. The pressure of the rolls is greater on copper than on aluminum of equivalent thickness, and specific pressures are minimum on sandwiches about 10 mm thick. As the thickness of the copper sheet in a 10 mm sandwich is decreased its deformation is reduced, and when the aluminum: copper ratio reaches 5.2-6.7 the sheets do not laminate. The distribution of torque between the rolls for bimetal over 5 mm thick was examined, but further study is required for thinner bimetals. The forward slip on aluminum is always greater than on copper when rolling bimetal, and as the initial thickness is increased from 2 to 13 mm the slip on copper is reduced to zero. Measurements of the contact arc between the metal sheets and the rolls showed that its length is determined by sandwich thickness, the amount of reduction per pass, and the ratio of the mechanical properties of the sheets and their thicknesses. Because of the complexity of the effects associated with the deformation of bimetal, further study of the specific pressure and of friction force diagrams is required. Orig. art. has: 5 figures

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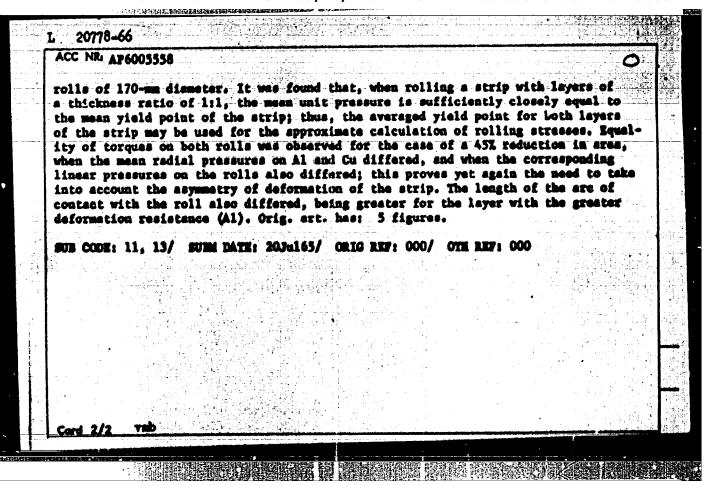
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ASSOCIATION: Moskovskiy	institut stali i splavov (Moscow Institute for Steels	
and Alloys) 44.55			
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- 1	MG: Moscow Institute of Steel and Alloys (Moskovskiy institut stali i splayov)	The state of
	CITIE: Certain features of the rolling of bimetal strip 0 counces: IVUE. Chernaya matallurgiya, no. 10, 1965, 80-83	
ه ا	COPIC TAGS: bimetal, metal rolling, aluminum, copper, yield strength, plastic	华工工
100	ABSTRACT: Reduction in area during rolling was investigated for a 40 mm wide Al-Cu strip as a function of the initial mechanical properties of each metal (as modified by preliminary peening or annealing) and the rate of their strain hardening during rolling. Owing to preliminary peening the initial ratio between the yield points of Cu and Al, Oscu/Osal; was 0.8 (peened Al, Al, annealed Cu) and 17 (peened Cu, annealed Al). The distribution of total reduction in area between the layers of the strip, the total and mean unit pressure, the linear pressure per unit width of the strip, the distribution of pressure over the arc of contact with the roll and the length	4
•	of that are, and the torque on the rolls were investigated in a rolling mill with	-,
	Cord 1/2 10C: 621.771.23.01	

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Field tests of new repellents against requitees in a hot clirate.
Trudy Astr. Zap. no.91192-196 '64. (MIRA 18:10)

KNYSHOV, F

Methodological work with teachers and instructors. Prof.-tekh. obr. 22 no.3:26-28 Mr 165. (MIRA 18:7)

1. Direktor uchebno-kursovogo kombinata tresta "Urupmedistroy" Glavnogo upravleniya po strcitelistvu v rayonakh Severnogo Kavkasa Hinisterstva gorodskogo i seliskogo strcitelistva RSrSR.

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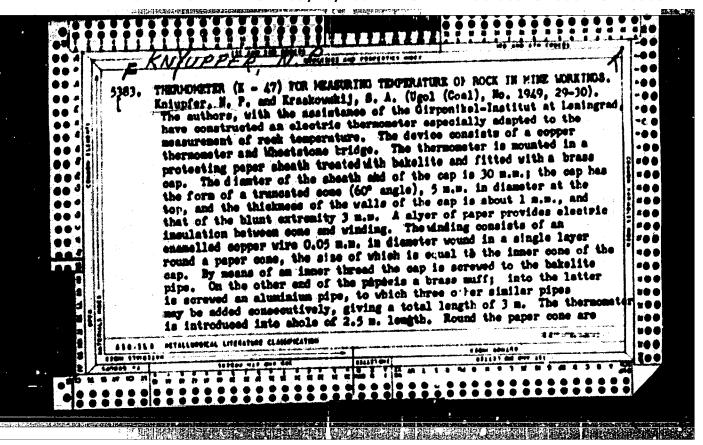
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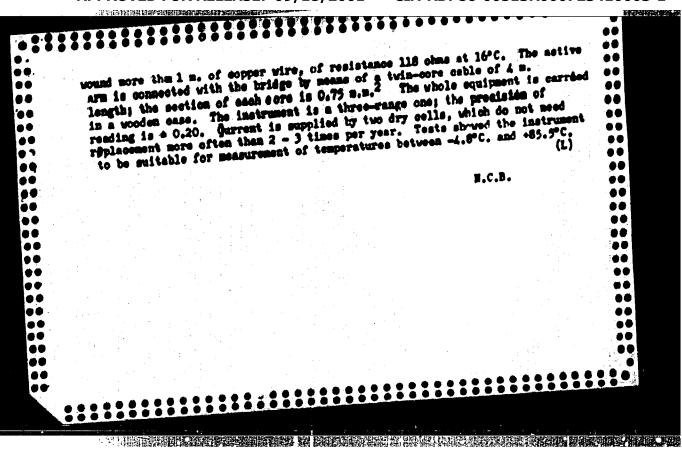
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- Shemshev, F.A., M.P. Knyupfer, N.I. Mikolayev, S.M. Tarakanov, and Ye.A. Sal'ye
- Rasvedochnoye bureniye (Exploratory Brilling) Moscow, Gosgeoltekhisdat, 1958. 485 p. Errata slip inserted. 20,000 copies printed.
- Ed. (Title page): F.A. Shanshev; Ed. (Inside book): V.A. Boravlev; Ed. of Publishing House; N.B. Rekrasova; Tech. Ed.: O.A. Carova.
- PURPOSE: This textbook is intended for petroleum geology and engineering students in schools of higher learning and for engineering personnel engaged in exploratory drilling.
- COVERAGE: The book covers the main theoretical and practical aspects of exploratory drilling. Equipment and methods are described and their effectiveness evaluated. Data on oil drilling tools and suriliary equipment include specifications and diagrams. N.P. Knyupfer prepared the chapter on measurement in directional drilling including the deflection of boreholes. N.I. Nikolayev contributed the data on rotary and turbo-drilling,

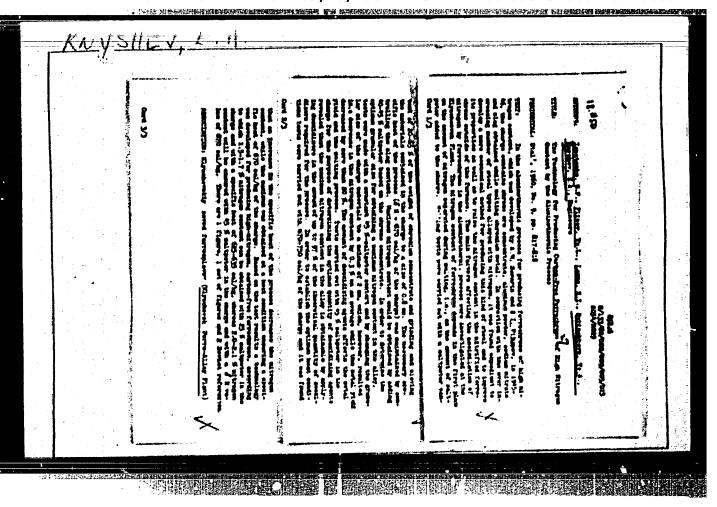
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IGNATINKO, G.F., insh.; PLINER, Ju.K., insh.; LAPPO, S.I., insh.; RUBINSHTEYN, Ye.A., insh.; XHYSHEV, E.A., insh.

Technology of mking high-nitrogen, carbon-free, ferrochroniya by the aluminothermic method. Stal' 20 no.9:817-818 \$ '60.

1. Klyuchevskiy savod ferrosplavov. (Aluminothermy) (Iron-orhomium alloys-Metallurgy)

APPROVED FOR RELEASE: 09/18/2001 CIA-RDP86-00513R000723410003-1" KNYSHEV, Ivan Nikitich; PRON', Vladimir Matveyevich; YURCHUK, V.I.,
kand. ist. nauk, otv. red.; VALICURA, V.A., red.; MATVICHUK,
A.A., tekhm. red.

[Our confident steps] Tverdoi postup'iu. Kiev, 1961. 45 p.
(Obshchestvo po rasprostranoniiu politicheskikh i nauchnykh
snanii Ukrainskoi SSR. Ser.l, no.20) (MIRA 15:2)

(Dnepropetrovsk—Steel industry) (Efficiency, Industrial)

Calculating f solids. Isv.	orces and deformations vys.ucheb.sav.; chern	s in the reduction of met. 5 no.6:71-75	laminated 62. (HIRA 15:7)	
1. Moskovskiy	institut stali. (Laminated metals)	(Forging)	(-22 2).1)	
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s/148/62/000/006/002/005 E081/E435

AUTHORS:

Polukhin, P.I., Gun, G.Ya., Masterov, V.A.,

Knyshev, Yu.V.

TITLE:

Calculation of the stresses and strains during the

pressing of layered bodies

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Chernaya

metallurgiya, no.6, 1962, 71-75

The problem considered is the pressing out between dies of a material consisting of n layers of different substances (Fig.1). taking into account hardening, friction between the layers, The work corresponding to and shear forces in the external zone, the two latter effects is evaluated and, using the method of undetermined multipliers, formulae are derived which enable the specific pressure and the state of strain in the material to be calculated. A nomographic method of accomplishing the calculations is outlined. There are 2 figures.

ASSOCIATION: Moskovskiy institut stali (Moscow Steel Institute)

SUBMITTED: January 10, 1962

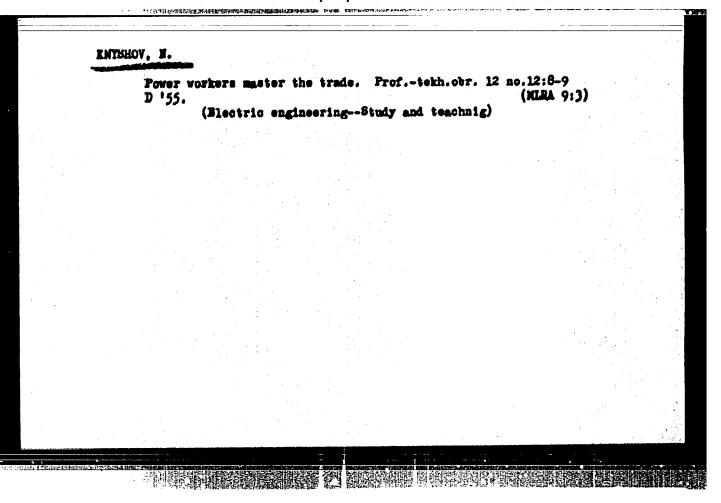
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"APPROVED FOR RELEASE: 09/18/2001 CIA-RDP86-00513R000723410003-1

NAYSHOV, Ivan Nikitich; PRON', Vladimir hatvoyevich; NESTEMBIKO, P.F., red.

[Sprouts of the new, the communist way] Parostky novoho, komunistychnoho. Dnipropotrovs'k, Dnipropotrovs'ke knyzh-kove vyd-vo, 1961. 58 p. (MIRA 17:10)



APPROVED FOR RELEASE: 09/18/2001 CIA-RDP86-00513R000723410003-1"

The use of radius and radioactive cobalt to treat cancerous formations on the eyelids. Min Health Ukrainian SSR. Khar'kov Hedical Inst. Khar'kov, 1956. (Dissertations for the Degree of Candidate in Hedical Science)

So: Knizhaya letopis', No. 15, 1956

KIEDAN, Herman, mgr ims.; KNIEZ, Josef, mgr ims.

9th International Electronics Congress in Rome, June 18-23, 1962.
Praegl telekom 35 [1.e. 36] no.3193-100 Kr '63.

1. Komitet do Spraw Techniki, Warssawa.

SOV/96-59-10-20/22

AUTHORS: Ko, A.P. (Dr.Tech.Sci.) and Kagan, Ya.A. (Cand.Tech.Sci.) TITLE:

Book Review - Standards for the Design and Calculation of Fuel-pulverising Installations'. Gosenergoizdat 1958.

159 pp.

PERIODICAL: Teploenergetika, 1959, Nr 10, pp 93-94 (USSR)

ABSTRACT: The material contained in this book is much needed by designers but it has not been very carefully drawn up and edited. More information is required about the

design of large shaft mills.

There are 1 table and 6 Soviet references.

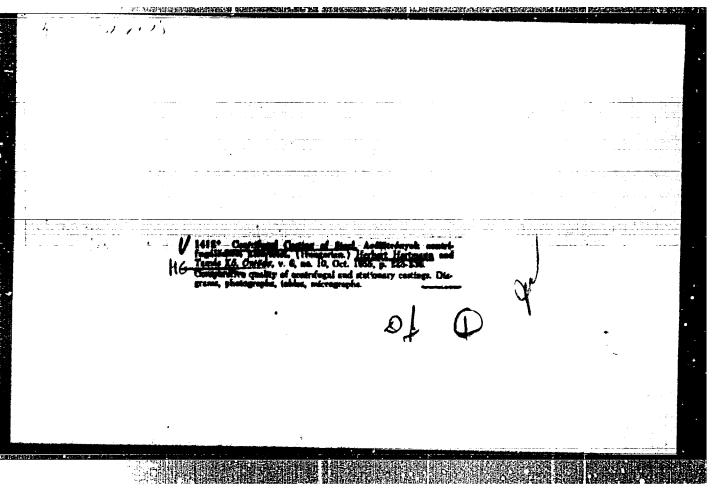
Card 1/1

APPROVED FOR RELEASE: 09/18/2001 CIA-RDP86-00513R000723410003-1"

Device for processing signals from industrial measuring instruments using counting technique. Meres automat 12 no.4/5:134-139 164.

1. Central Research Laboratory of Measuring Techniques.

"APPROVED FOR RELEASE: 09/18/2001 CIA-RDP86-00513R000723410003-1



KOLLOV, I.G. (Physician; Cand Med Sci)

Missertation: "Experiments for Using Skin from a Corpse in Otorhinolaryngology."

Second Moscow State Medical Institute inerti I.V. Stalin

23 May 49

SO Vechery aya Moskva
Sum 71

MOATROVA, S.A., PHYSICIAN

Dessertation: "Cardiotoxicity of the Ruman Serum in a Case of True Rheumatism."

23 Mey 49

Second Moscow State Medical Inst unein

I.V. Stalin

SO Vecheryaya Mcekva

Sum 71

AYZEESHTEYN, M.D.; DEMIDOVICH, Te.A.; KOBA, A.G.

Pluting inclined sections of roll grooves by disk knurling.
Metallurg 9 no.5:34-35 My '64. (MIRA 17:8)

1. Tenakiyevskiy metallurgicheskiy savod.

**Rechanised production of three-step cerasic blocks. Sil'. bud.
10 no.9:17-18 s'60. (NIRA 13:5)

1. Predsedatel' Tavoriyskoy meshkolkhosnoy stroitel'noy organisatsii L'vovskoy oblasti.
(Building blocks)

USLOHTSEV, B. MOBA, G. [Koba, H.]

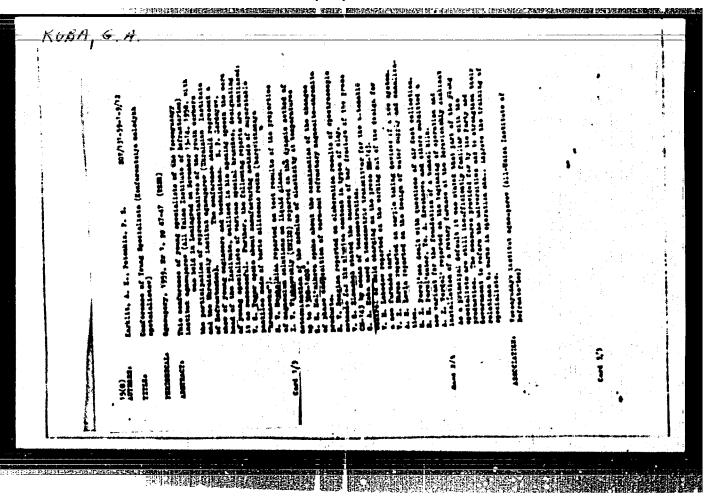
Arched livestock buildings are being built by production-line methods. Sil'. bud. 10 no.11:7-10.8 '60. (MIRA 13:11)

1. Rukovoditel' gruppy sektora tekhnologii i organisatsii stroitel'stva Akademii stroitel'stva i arkhitektury USSR (for Uslontsev). 2. Rukovoditel' soveta Tavorovskoy meshkolkhosnoy stroitel'noy organisatsii L'vovskoy oblasti (for Koba).

(Lyov Province-Farm buildings)
(Collective farms-Interfarm cooperation)

KORA, G. [Koba, H.] Use of three-stepped blocks in rural construction. Bud. mat. i honstr. 4 no.1:35-37 Ja-7 '62. 1. Colova Yaverive'kogo mishkolgosphudu. (Gollective farms—Interfarm cooperation) (Ceramics)

"APPROVED FOR RELEASE: 09/18/2001 CIA-RDP86-00513R000723410003-1



APPROVED FOR RELEASE: 09/18/2001 CIA-RDP86-00513R000723410003-1"

15(2) AUTHORS:

Yanpol'skaya, A. A., Koba, G. A.

50 1/131-59-3-5/18

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TITLE:

Automatic Control of the Dosing of the Mass on the Press SM-143 (Avtomaticheskoye regulirovaniye zasypki massy na presse SM-143)

PERIODICAL:

Ogneupory, 1959, Mr 3, PP 115-120 (USSR)

ABSTRACT:

On the press SM-143 the pressing effect is transformed by the press rods and the tensions forming in them are characteristic of this force. For measuring the tensions in the rods extensometers are used which are fastened to the opposed rod surfaces as can be seen from figure 1. The extensometers are connected by a non-equilibrium bridge which is fed by direct-current of constant voltage. The unbalance-voltage of the measuring bridge in its operation on an electron amplifier with a high input impedance can be computed from the formula $U = 1.25 \frac{I}{2} \Delta R$, where ΔR denotes the variation of the bridge resistance, I the current atrength of the bridge supply and 1.25 a constant. Figure 2 shows the simplified scheme of the automation-dosing of the mass and detailed descriptions are given next. Figure 3 gives the press carves. The scheme of the measuring bridge is shown on figure 4 and the basic scheme of the relay connecting block on figure 5. An experimental device was tried on a press SM-145

Card 1/2

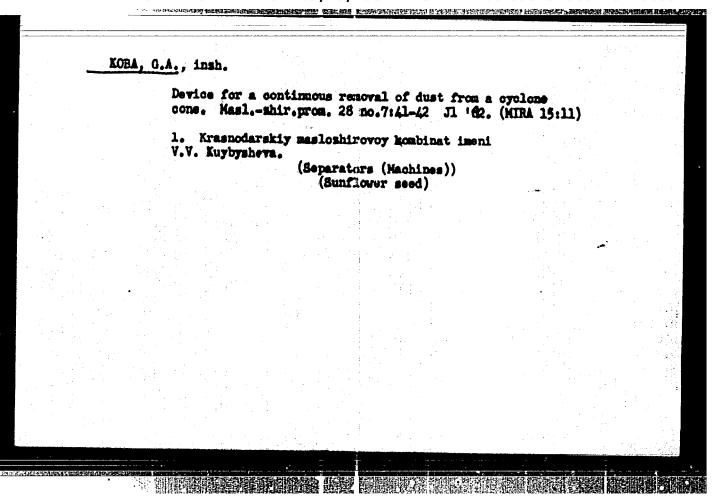
APPROVED FOR RELEASE: 09/18/2001 CIA-RDP86-00513R000723410003-1"

Automatic Control of the Dosing of the Mass on the Press SM-143

of the Borovichskiy kombinat (Borovichi Kombinat). The tensions in the press rods, the current strength of the press electromotor and of the signals of the cutput relay were oscillographically recorded (Figs 6,7,and 8). At the same time the pressed products were examined as to weight and strength. Figure 9 shows the measuring and weighing results of the unworked press material with hand and automatic control of the mass dosing the uniformity of the products is increased and the work of the pressmen rendered more easy.— There are 9 figures and 6 references, 5 of which are Soviet.

ASSOCIATION: Vsesoyuznyy institut ogneuporov (All-Union Institute for Refractories)

Card 2/2



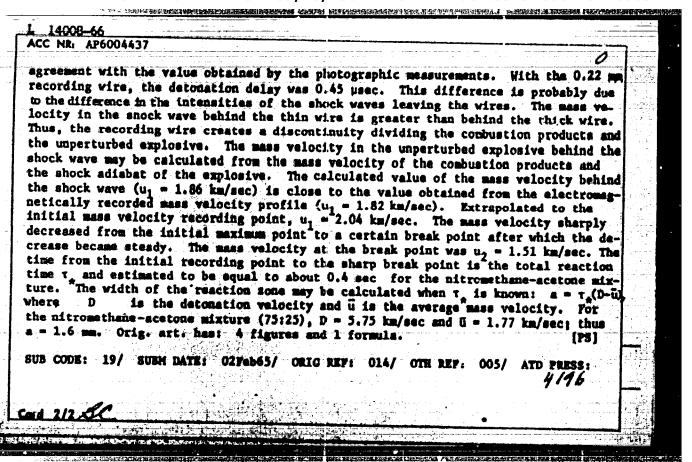
THE RESIDENCE OF THE PROPERTY OF THE PROPERTY

YAM, V.M., inzh.; KOBA, G.A.; GOLOSKOV, E.I.

Investigating stresses in frames of hydraulic press housings. Trudy Inst. ogneup. no.35:137-158 163. (MIRA 17:12)

1. Vsesoyuznyy institut ogneuporov (for Koba). 2. Leningradskiy zavod "Metallist" (for Goloskov).

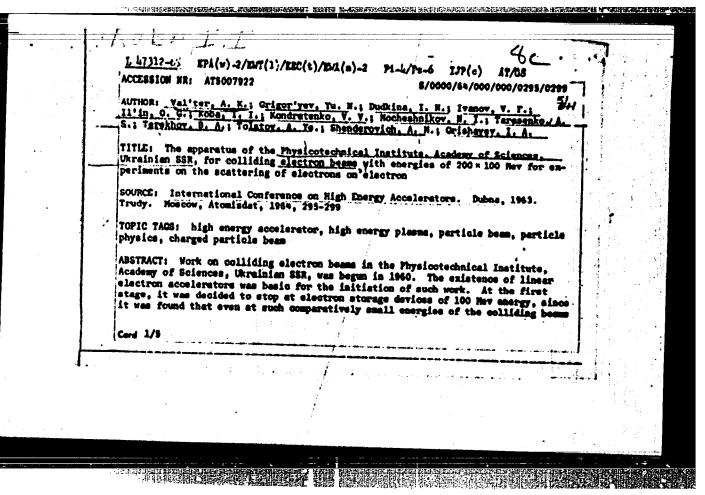
THE STATE OF THE S L 14008-66 FSS ACC NR. AF6004437 /ENT(m)/ENP(1)/T/FCS(k) WW/JW/JND/GG/NE/RM SOUTICE CODE: UR/0414/65/000/003/0093/0098 Resenor, Il. K. (Hoscow); Kobe, I. G. (Hoscow) ORG: none TITLE: Study of the reaction time in the detonation of liquid explosives by the electromagnetic method 21.44.75 SOURCE: Finika goraniya 1 varyva, no. 3, 1965, 93-98 TOPIC TACS: liquid explosive, detonation time ABSTRACT! The reaction fine f in the detonation of liquid explosives was studied by obtaining mass velocity profiles for charges of mitromethane and of a mitromethane-acetone mixture (75:25) using the previously described electromagnetic method (A. N. Dremin, R. K. Shvedov. PMTF, 1964, 2). To determine the effect of the size of the recording wire, which is located within the explosive charge in the electromagnetic method, the interaction of a detonation wave with a plate of aluminum foil (0.035 mm thick) and with a mics plate (0.04 mm thick) in nitromethane and nitromethane-acetome mixtures was studied using high-speed photography. It is shown that there is a detonation delay of about 0.15 usec behind both the aluminum and the mice plates. The mass velocity profiles recorded by the electromagnetic method with wires 0.035 and 0.22 mm thick for nitromethens and nitromethens acctone mixtures also showed a detonation delay of about 0.17 usec in the case of the 0.035 mm wire, which is in good

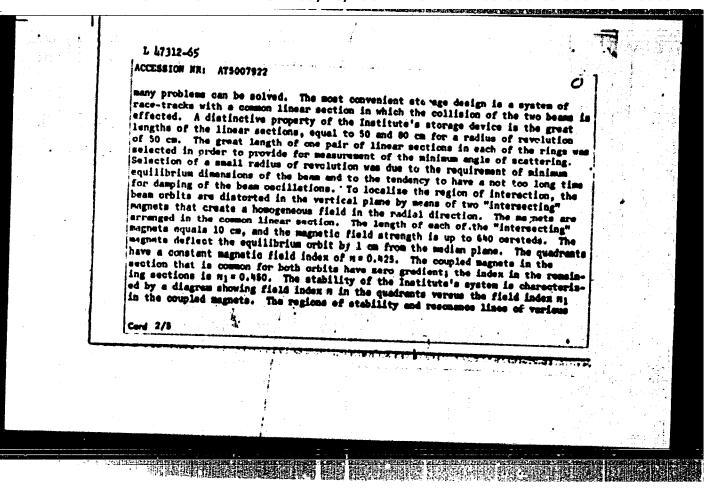


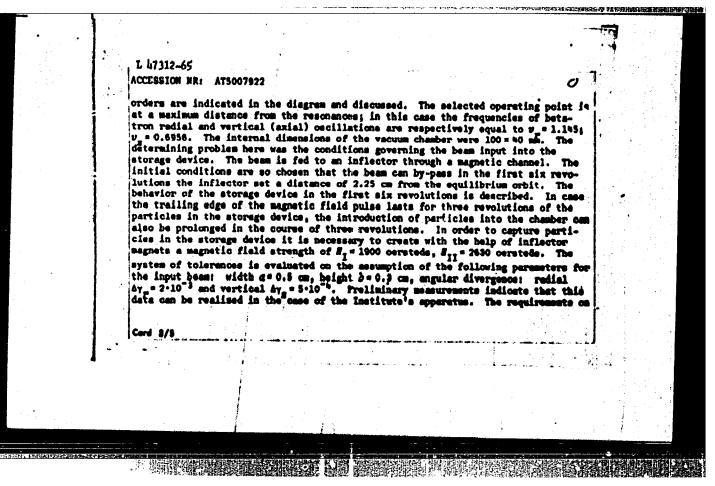
KOBA, I.I., SHEVCHENKO, B.D., YARTSEV, P.A.

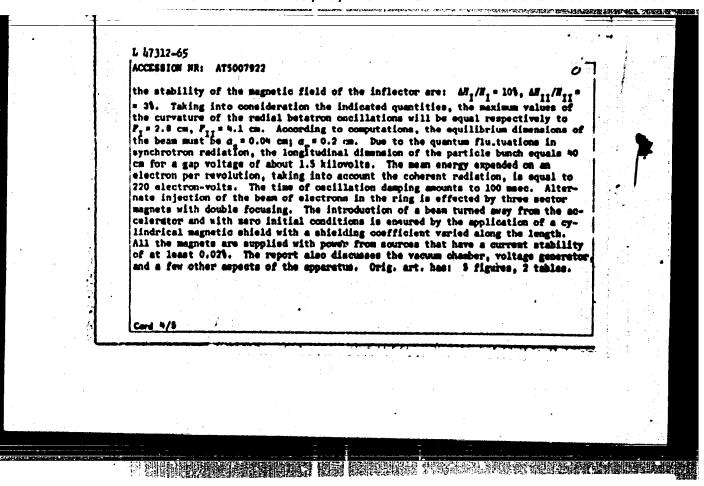
"High frequency system experiment placing "VP" in energy of 100 MgV."

Report submitted to the Intl. Conference on High Energy Physics and Muclear Structure, Geneva, Switzerland. 25 Feb-2 Mar 1963









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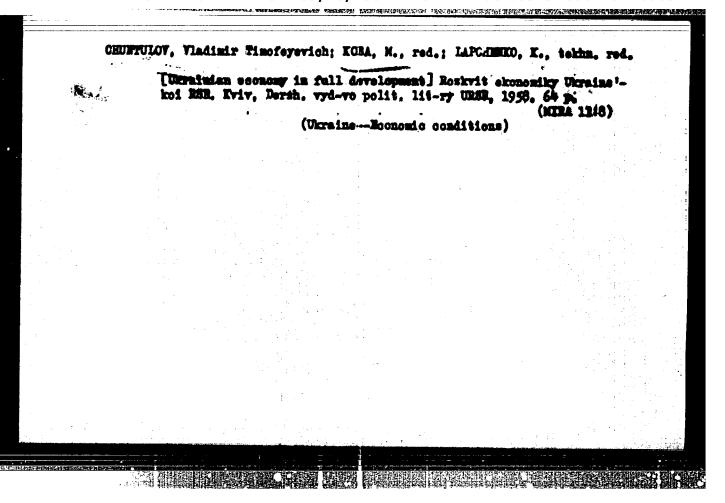
APPROVED FOR RELEASE: 09/18/2001 CIA-RDP86-00513R000723410003-1"

SEMANGHUK, Desirity Iosifevich; KCRA, M., redektor; LEVCHSEKO, O., tekhnichniy redektor

[Production capacities of injustrial enterprises and methods for their efficient use] Tyrobmychi potushnosti promyslovyth pidpylemetv i shlishhy ith retsional bob vykorystannia. Kyiv. Dersh.vyd.vo polit.litery URSE, 1957. 46 p.

(Russia--Industries)

(Russia--Industries)



STURNMIKOV, Timofey Vesil'yevich [Studennykov, T.V.]; KCBA, H., red.;

KCPIRKOVA, H., tekhn, red.

[Transportation and communications in the Ukraine during the seven-year plan] Transport is v'ianok Ukrainy v Semyrichtei.

Kyiv, Dersh. vyd-vo polit. lit-ry URSR, 1960. 102 p.

(Ukraine--Communication and traffic)

(Ukraine--Communication and traffic)

OSTROVITIANOV, I.V.; GATOVEKIY, L.M. [Hatove'kyi, L.M.]; EUR'MINOV, I.1.;
DUBOVEMO, Te. [Dabovenko, IH.], red.; KOBA, M., red.; KOFITKOVA,
H., tekhn.red.

[Political economy; textbook] Politychna ekonomia; pidruchnyk.
Peraklad s 3 perer. i dep. resiis'koho vyd. 1959 roku. Kyiv.
Dersh.vyd-vo polit.lit-ry URSR, 1960, 686 p. (MIRA 13:7)

1. Akademiya nsuk USSR, Kiyev, Institut ekonomiki.
(Boonemics)

KARAKOZ, Ivan Ivanovich; KOBA, M., red.; MIL'KIM, Iu., tekhm. red.

[How to use the preduction funds of an enterprise to a better edvantage] Shliskiy krashehoho vykorystamnia vyrobnychyk fendiv pidpryiezstva. Kyiv, Dersh. vyd-ro polit. lit-ry URSR, 1961. 35 p.

(Industrial management)

(Industrial management)

RYZHKOV, Ivan Ivanovich, kand. ekonom. nauk, starshiy nauchmyy sotr.;

KOBA, M., red.; GAVRILETS, D. [Havrylets', D.], tekim. red.

[Production funds of industrial enterprises] Vyrobnychi fondy promyslovykh pidpryjemstv. Kyiv, Dersh. vyd-vo polit. lit-ry, URSR, 1961. 37 p. (MIRA 14:11)

1. Institut ekonomiki AN USSR (for Ryzhkov).

(Capital)

CIA-RDP86-00513R000723410003-1

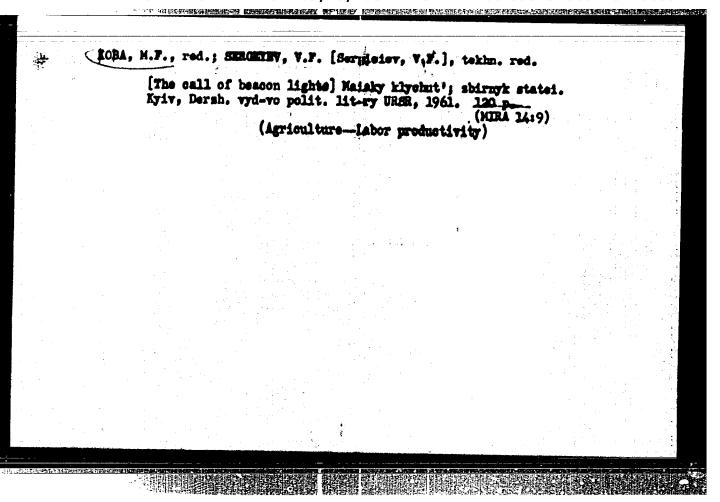
BONDARENKO, V.V.: loktor ekon. nauk, otv. red.; KOBA, M.F., red.; LISOVETS', O.M. [Lysovets', O.M.], tekhn. red.

[Problems of labor productivity statistics in industry and agriculture]Pytannia statystyky produktyvnosti pratsi v promyslovosti i sil's'komu hospodarstvi. Vyd-vo AN URSR, 1962. 302 p. (MIRA 16:2)

1. Akademiya nauk URSR, Kiev. Instytut ekonomiky. 2. Zavedu-yushchiy otdelom statistiki Instituta ekonomiki Akademii nauk Ukr.SSR (for Bondarenko).

(Productivity accounting)

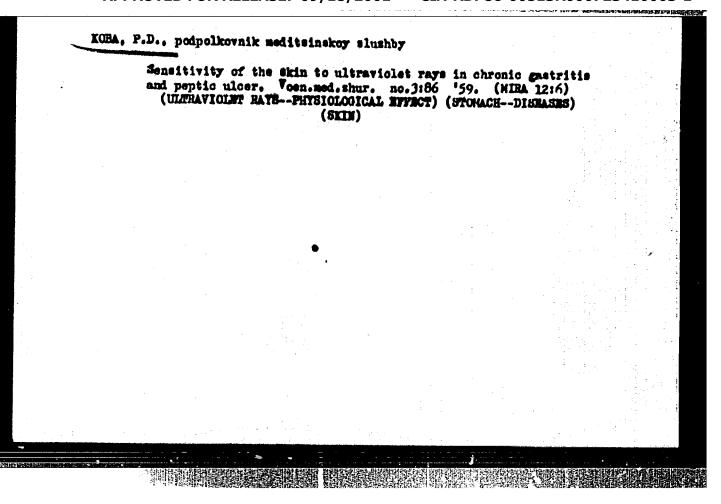
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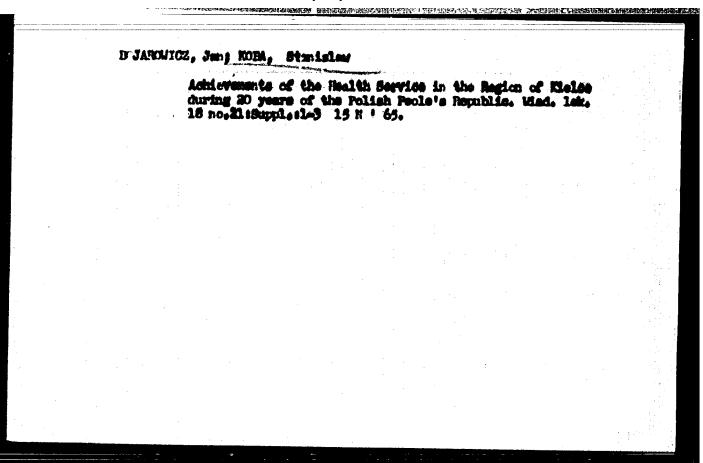


Connection between industrial training and the study of science in the secondary schools. Politekhn.obuch. no.3:20-22 Nr '59.

(Science-Study and teaching)

APPROVED FOR RELEASE: 09/18/2001 CIA-RDP86-00513R000723410003-1"





KORA, Stanislay, WESOLOWSKI, Zenon

A case of agranulocytosis after pyramidone. Wiad. 1ek. 18 no. 21:57-59 15 N 1 65.

1. Z Oddzialu Zakaznego Szpitala Wojskowego w Kielcach (Ordynator: dr. med. S. Koba).

KOBA, Stanislaw

History of health service in the county in Kielce region in XIX century. Wiad. lek. 18 no.21:Suppl.:87-89

On certain infectious diseases in Kielce and intthe county of Kielce i XIX century. Tbid.: Suppl.:91-95 t 65.

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28(1)

POL/46-4-1-8/15

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AUTHOR:

Bayer, Ryzard, Chmielewski, Jerzy and Koba, Teresa

TITLE:

A 14 Channel Pulse Amplitude Analyzer with Counting Attachment (14-kanalowy analizator amplitudy z przyst-

PERIODICAL:

Nukleonika, 1959, Vol 4, Nr 1, pp 87-91 (Poland)

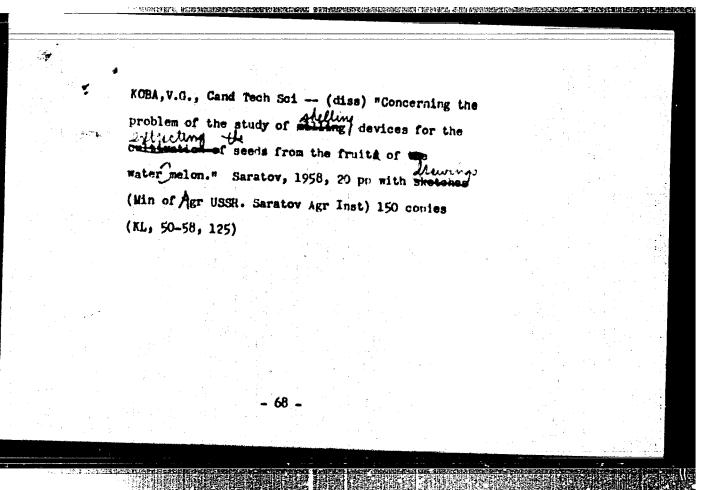
ABSTRACT:

A description of the equipment with a block-diagram (Fig. 1) of the analyzer and the counting attachment is given. Furthermore the equipment is illustrated with and without the case. The range of application is outlined in brief. Analyzer - 14 channels; width of channel gate - 2,5,10 V; impulse amplitude - 16-171 V; width of impulse - 1-5 micr.; separation time - 2.5-5 micro-sec.; Stability of discriminator - ± 50 mV; working conditions - 220 V, 900 VA; size - 570 x 360 x 2300 mm. Specification of counting attachment: scaling factor total count storage 999999; resolving time - numerator about 0.1 sec; size - 560 x 340 x 840 mm. There are 1 layout and 2

Card 1/2

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UL'YANOV, Aleksey Pedorovich, doktor tekhn. nauk; KOBA, Viktor
Grigor'yevich, kand. tekhn. nauk; LOGVINOV, H., red.; HYKOVA,M.,
red.; LUKASHEVICH, V., tekhn. red.

[Overall mechanisation of livestock farms] Kompleksnaia mekhanisatsiia v shivotnovodstve. Saratov, Saratovakoe knishnoe
isd-vo, 1961. 261 p.

(Farm mechanisation)

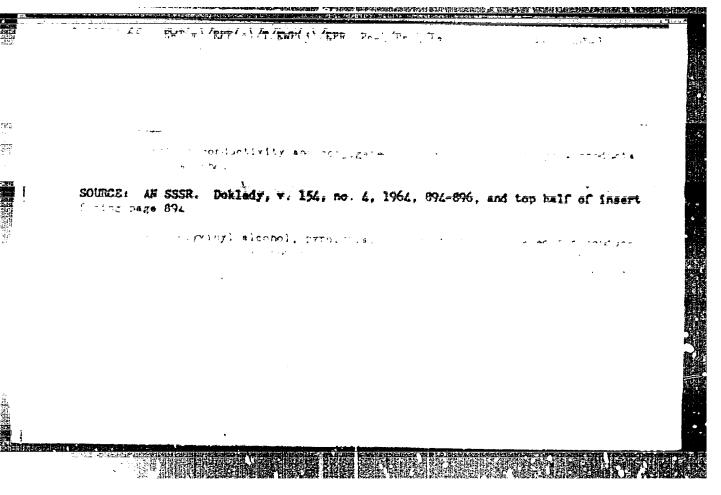
(Farm mechanisation)

PARSHIN, Yu.A.; KOBA, V.I.; SAVENKO, A.L.

Remote safety device for placing the neutron source in the logging tool of the STP-MGG2-57 apparatus. Sbor.luch.rats.predl. pt. 2: 51-53 '63. (MIRA 17:5)

1. Glavnoye upravleniye geologii 4 okhrany nedr pri Sovete Ministrov BSSSR.

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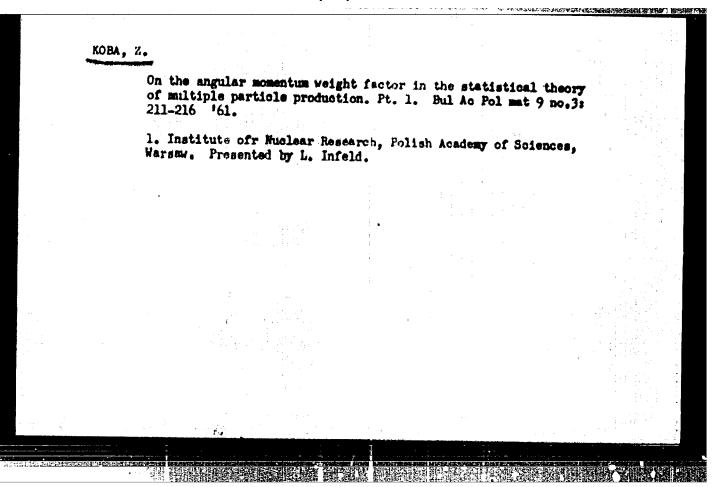
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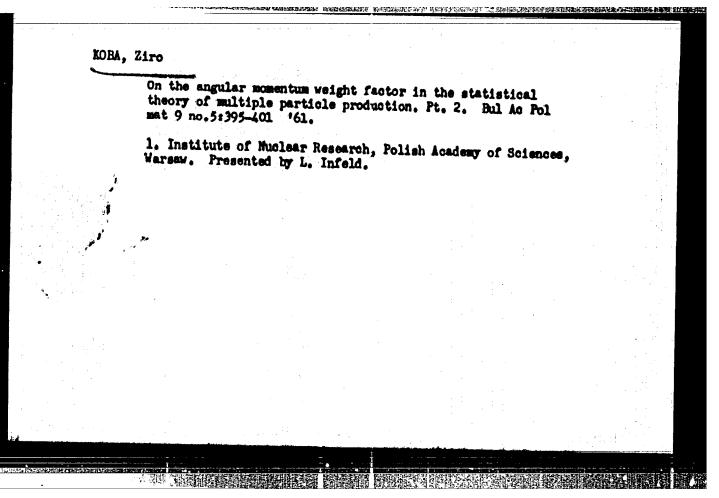
L 22217-65 ACCESSION NR: AP4012975 hours at 200-8000. It was found that nolyvinyl alcohol undergoes a change in molecular structure at 3000. The maximum concentration of aliphatic conjugated double bonds, minimum erystallinity, and maximum electric conductivity appear . All and inort gas at 3000. Pyrelysis at higher ammerations increases and series and lowers active non-energy, among the transmit of the nertion structures" segments folyone .. LA . "Alex arrimation at in the teacher in their names of an entrance in of of oldouble bonds. The maximum resistivity and activation energy of colysis products is apparently associated with the complete breakdown of - Total POLYVINY BECORD and disablescence of hydrogen bosoing before any A CALTS GIT I CLIEBOL. ULLE BILL DAS GITTING GDC . LAD. a Vsesoyusnyy nauchno-isslede vatel skiy institut menokristallev, Seal neighbor vater annuch materialov i esobe chistyth khimich makikh veshchostv /ill-.... of Assearch institute of Single Crystals, Scientilization Meterials, --- w. by vicuical Substances) SUBLITTED: 26Sep63 THE CO SUB COME: OC, GC NO REE DOY: 005 OTHER: 005 42

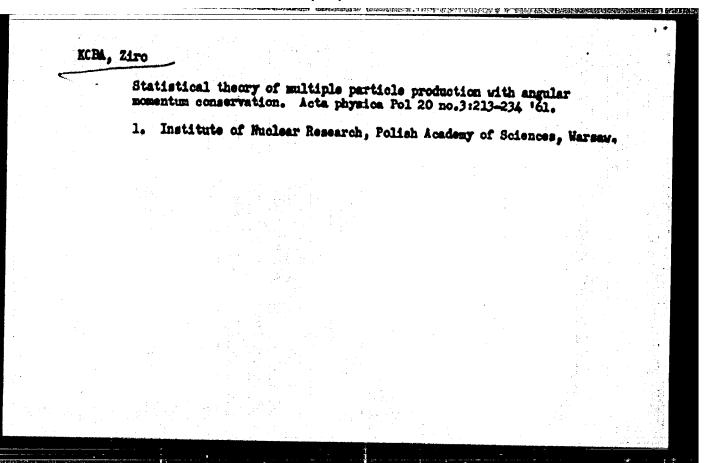
GRYNEERG, M.; KOBA. Z.

Pive pien isospin wave functions. Bul Ac Pol mat 11 ne.
11:701-706 '63.

1. Institute of Theoretical Physics, University, Warsaw and University Institute for Theoretical Physics, Copenhagen.







THE PROPERTY OF THE PROPERTY O

33784 P/045/62/021/002/005/007 B137/B102

AUTHORS:

Koba, Ziro, and Krzywicki, Andrzej

Remarks on the "effective target mass"

TITLE

Acta Physica Polonica, v. 21, no. 2, 1962, 153 - 174

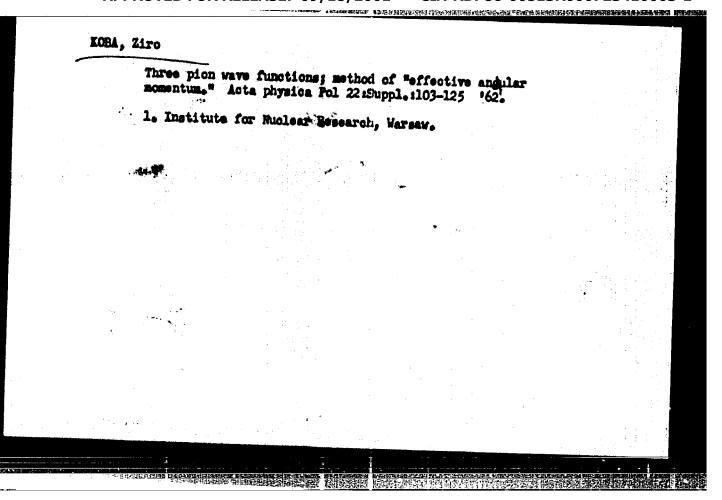
TEXT: The authors investigate the "effective target mass" as defined by PERIODICAL: N. G. Birger and Yu. A. Smorodin (Zh. eksper. teor. fiz., 37, 1355 (1959)) as to whether or not this experimentally measurable quantity can give certain information on the collision mechanism and the high (some Gev) and superhigh (~10² Gev) energy ranges. If an incident particle (nucleon or pion) is assumed to collide, not with the whole target particle (nucleon), but only with a samul part of it (e.g., a virtual pion in the cloud) with a samul part of it (e.g., a virtual pion in the cloud) with a samul part of it (e.g., a virtual pion in the cloud) with an effective mass me, this quantity me can be written as $(p_{01}^{(1)} - p_1^{(1)})$ cos $q_1^{(1)}$, where (1) indicates a quantity in the

laboratory system, and Z' denotes summation not including the recoil target nucleon. The invariant quantity $x^2 = \Delta^2 - \Delta_0^2$ plays an Card 1/3

Remarks on the "effective target ...

33784 P/045/62/021/002/005/007 B137/B102

essential role in the field-theoretical treatment. $\overrightarrow{\Delta}$ and $\overrightarrow{\Delta}_o$ denote respectively the energy and momentum transfer between two groups of particles. Since x2 is not easy to determine experimentally, the authors derive the following relation between x and max $x = m^2/\gamma_m - \sqrt{\gamma_m^2 - 1}$ where γ_g is the Lorentz factor connecting the so-called S system with the laboratory system. The S-system or minimum-momentum system is characterized by Δ (s), 0, i.e., the energy transfer between two groups of particles vanishes. A method for determining a from measured values of me is given. The effective target mass is examined first within the framework of general kinematic relations which are independent of any interaction mechanism, then from the point of view of the one-pion exchange theory. The ratio of the effective target mass to the whole mass of the target particle is related to partial inelasticity in a system moving in the direction of incidence. A method for determining the mirror inelasticity from the measured recoil momentum is given. A quantum-field theoretical investigation of the target mass on the basis of the one-pion exchange model without and with pole approximation (where the "cross



S/058/63/000/002/015/070 A059/A101

AUTHOR:

Koba, Ziro

TITLE:

Three pion wave functions. Method of "effective angular momentum"

PERIODICAL:

Referativnyy zhurnal, Pizika, no. 2, 1963, 17, abstract 2B112 ("Rept. Inst. badań jądrow. PAN", 1962, no. 320/VII, 30 pp, English; summaries in Polish and Russian)

TEXT: The system of three pions A, B, and C is examined from the purely kinematic point of view. A method of construing wave functions in configuration space is suggested, having a given total momentum, total orbital momentum, and parity in the C-system, and prescribed symmetry properties. An assembly of orthonormalized functions is introduced:

$$\Xi_{\text{lm},\text{IM},P,\nu} (\vec{s}, \vec{t}) = (P^{1/2}/R^2)Y_{\text{lm}}^{\text{lm}}(\omega_{\text{t}}) \times Y_{\text{lm}}^{\text{lm}}(\omega_{\text{lm}}) \times Y_{\text{lm}}^{\text{$$

where $s = (1/\sqrt{6})(\vec{x}_A + \vec{x}_B - 2\vec{x}_C)$, $\vec{t} = (1/\sqrt{2})(\vec{x}_A - \vec{x}_B)$, ω_s and ω_t are the solid angles

Three pion wave functions. Method of ...

S/058/63/000/002/015/070 A059/A101

of vectors s and t, respectively, $\theta = \operatorname{arotg} \ t/s$; $R^2 = s^2 + t^2$, and $P^2 = u^2 + v^2$, where u and v are momenta canonically conjugated with s and t; P(L) are normalized Jacobi polynomials. The new quantum number v = 0, 1, ... characterizes the distribution of the "total relative momentum" P between the parts u and v; the less v, the more symmetrical the splitting. The value $\Lambda = 1 + L + 2v$ is denoted as the effective orbital momentum. The states E with a fixed Λ form a subspace invariant to the group S_3 of permutations of particles A, B, C between each other. From the wave functions E, further wave functions with given total momentum, its projection, and Λ are construed, which also form a subspace invariant to transformations of the group S_3 . A table of these functions is presented which correspond to a given irreducible representation of S_3 (with $\Lambda \leq 4$), as well as a table which gives the number of configuration functions with $\Lambda = 5$ and δ , and a table of isospin functions of three pions. The method can be generalized to a system of four and more pions.

M. Braun

[Abstracter's note: Complete translation]

Card 2/2

GRYNEERG, M.; KOBA, Z.

Four-pion wave functions. Acta physica Pol 23 no.4:501-526 Ap 163.

1. Institute for Nuclear Research, Warsaw.

"APPROVED FOR RELEASE: 09/18/2001 CIA-RDP86-00513R000723410003-1

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KOBAK, Kira Ivanovna

Some problems concerning the carbon dioxide supply of forest biogeocenomes. Problem. ekol. i fiziol. les. rast. no.2:61-98 (MIRA 18:11)

1. Leningradskaya ordena lenina lesotekhnicheskaya akademiya imeni S.M. Kirova.

KORAK, K.I.

Carbon dioxide concentration in the ground layer of air in forest biogeocomoses. Trudy Inst. biol. UFAK SSSR no. 43: 199-201 165 (MIRA 19:1)

1. Leningradskaya lesotekhnicheskaya akademiya imeni S.M. Kirova.

Speeding up mechanisation of water supply on livestock farms of collective and state farms. Sil'.bud. 10 no.1:3-4 Ja '60.

(Ukraine--Water supply, Rural)

AUTHOR:

Kobak, V.O.

sov/106-59-7-6/16

TITLE:

Design of "Two-sided" Diode Limiters

PERIODICAL: Blektrosvyaz', 1959, Nr 7, pp 40 - 44 (USSR)

ABSTRACT: Although two-sided diods amplitude limiters, i.e. limiters which clip the top and bottom of signals, find wide application, no detailed analysis has been made from which engineering formulae may be obtained. The author therefore considers four two-sided diode limiter circuits and produces design formulae for them. In the first two circuits, which the author calls "Type A" circuits, the first diode is the lower limiter and the second diode is the upper limiter (Figure la). In the second two circuits .. Type B, the diode connections are changed round; the first diode is the upper limiter and the second the lower

In the analysis, it is assumed that the internal resistance of the diodes in the conducting direction is constant and equal to R_1 ; in the reverse direction, the resistance is

assumed infinite. The static limit thresholds are determined. Cardine

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In a dynamic regime, the results obtained are distorted somewhat, due to inter-electrode capacity. (This problem was investigated in the work of h.Ye. Zhabotinskiy and Yu. L. Sverdlov - Ref L)
A Type A circuit (which limits positive polarity signals) and its characteristic is shown in Figure 1. For this circuit, the following conditions must hold:

$$\mathbf{r}_{0} > \mathbf{v}_{\mathrm{Bx2}} > \mathbf{v}_{\mathrm{Bx1}} > 0 \tag{1}$$

$$R_1 > R_2 \tag{2}$$

When UBx (diode of closed) and assuming that:

$$R_1 \ll R, R_1, R_2$$
 (5)

then the following relationships are obtained:

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$$U_{Bx1} \simeq U_{Bb1x1} \simeq \frac{E_o(a+b)}{a+b+2ab}$$
 (4)

where

$$a = R_1/R$$
, $b = R_2/R$

When $v_{Bx} > v_{Bx2}$ (diode J_2 closed), then:

$$U_{\text{Bx2}} = U_{\text{Bblx2}} \left(c + \frac{c}{a} + 1 \right) - E_{o} \frac{c}{a}$$
 (5)

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$$U_{Bb1x2} = \frac{z_o}{1+b} \tag{6}$$

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where:

$$c = \frac{R_{Bx} + R_1}{R}$$

The symbols are as indicated in Figure 1. For design purposes, these relationships are re-arranged into the forms of Eqs (7) and (8). The value of c determines the transfer coefficient of the limiter:

$$k = \frac{U_{Bb1x2} - U_{Bb1x1}}{U_{Bx2} - U_{Bx1}}$$
 (10)

which can be written as:

$$k = \frac{1}{c\left(\frac{1}{a} + \frac{1}{b} + 2\right) + 1}$$
 (11)

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Design of "Two-sided" Diode Limiters SOV/106-59-7-6/16

The procedure for applying these formulae to the computation of the element values is then given.

These design formulae can be applied to the reverse diode connection circuit (Figure 3a). Only formula (1) is altered to the form:

 $E_o < v_{Bx2} < v_{Bx1} < o$.

The Type B circuit differs from the Type A in that the first diode limits at the upper level and the second at the lower level. Such a circuit is obtained from the circuit of Figure 3a by changing the negative voltage - B to a positive value + B . This gives greater flexibility since a positive signal can be limited at the upper level and a negative signal at the lower level, depending on the relationship of the elements. Possible characteristics are shown in Figure 4 (I and II). When U Bx < UBx1 !

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the converse is true. For normal operation, the following conditions must be fulfilled:

$$v_o > v_{Bx2} > v_{Bx1}$$
,

$$E_0 > v_{Bx2} > 0, v_{Bx1} \ge 0$$
 (12)

$$R_2 > R_1 \tag{15}$$

The design formulae deduced for this circuit are similar to those for the circuit Type A (Eqs 4-8), except that UBx1 and UBx2 are interchanged and also UBblx1 and UBblx2 are mutually interchanged.

The results of experimental measurements are given in Table 1.

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AUTHORS:

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Andreyev, Yu. A., Kobak, V. O.

TITLE:

Properties of the double-T bridge, taking into account the effect of the generator and load parameters

PERIODICAL: Elektrosvyaz', no. 7, 1961, 3 - 11

TEXT: All previous publications dealing with the properties of the double-T bridge, and taking into account the generator impedance and the load, are limited to particular cases. The authors of the present article examine the most general case. After a brief recapitulation of the main formulae of the double-T bridge when the generator impedance and the load are not taken into account, the authors present a general analysis of the loaded bridge. The formulae giving the zero-talance condition and the tuning frequency ω_0 are the same, here, as in the case of the nonloaded bridge. To determine transmission factor T, the author gives the following formula $(\delta = \omega/\omega_0)$ being the relative detuning, and $Y = \delta - 1/\delta$ the generalized relative detuning):

$$\frac{1}{T} = \frac{U_{\text{inp}}}{U_{\text{outp}}} = (1 - i\frac{D_1}{Y}) + \frac{Z_{\text{gen}}}{Z_T} [(D_1 + D_2) - i\frac{D_1 D_2}{Y}] - i\frac{Z_T}{Z_1} \frac{1}{Y} + \frac{Z_{\text{gen}}}{Z_1} (1 - i\frac{D_2}{Y})$$
(5)

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where:

$$Z_{T} = R_{1} \left(\frac{1+\beta}{\sqrt{\alpha \beta n}} - \frac{1}{13} \frac{(1+\alpha)}{\alpha} \right)$$

$$D_{1} = \frac{\alpha ((1+\beta) + \beta n(1+\alpha)}{\sqrt{\alpha \beta n}}$$

 $D_2 = \frac{(1+\beta)+n(1+\alpha)}{\sqrt{\alpha \beta n}}$

Properties of the double-T bridge...

n being any positive number $(0 < n < \infty)$, $\alpha = R_1/R_2$ and $\beta = C_2/C_1$. The balance conditions of the bridge characteristics are determined, in the general case, by the relations

Re T (d) = Re T (
$$\frac{1}{3}$$
)
In T (d) = - In T ($\frac{1}{3}$) (6)

The analysis of the possible ways of connecting the double-T bridges reveals that, from the point of view of their use in selective tube (or transistorized) amplifiers, the most interesting connection is that shown in Fig. 4. In this case, Cgm represents the transfer capacitance from the anode of a tube, Rgen is determined by the anode load and the internal tube resistance, R₁ is the input resistance of

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a tube, and C₁ serves only to balance the bridge characteristics. The authors analyze the conditions (relating the parameters of the generator, of the load and of the bridge) to be satisfied for the symmetry of the amplitude-phase characteristics of the circuit of Fig. 4. There are five variants of \$100.500 \$100.50

 $R_1C_1 = nR_{gen}C_{gen}$; $R_1C_1 = R_1C_1$; $R_1C_1 = R_2C_2$; $R_1R_2 = (1+n)R_{gen}R_1$ (8d) The transmission factor is given by the following expression, whichever of the five sets of conditions is satisfied:

$$T = \frac{T_{m}}{1 - 1\frac{d_{1}}{Y} + 1\frac{Y}{d_{2}}}$$
 (9)

In the case of conditions (8d):

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Properties of the double-T bridge ...

T_m =
$$\frac{\alpha^2}{(\alpha+\delta)(\alpha+\delta+2\alpha\delta)}$$

d₁ = $\frac{(1+n)(1+\alpha)(\alpha+\delta)^2}{\sqrt{n\alpha}}$

d₂ = $\frac{(1+n)\alpha}{\delta^2\sqrt{n\Gamma_m}}$

(10)

The frequency characteristic of the bridge, in the general

(11)

calculated according to formula: The phase characterist

Using (9), it is easy to plot the amplitude-phase characteristic of the bridge in the complex plane. This characteristic consists of two superposed circumferences. The Q-factor of an RC selective system is determined, in the general case, as the

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Properties of the double-T bridge ...

steepness of the frequency characteristic at the tuning frequency. As applied to the case of formula (9), the Q-factor is:

(12)

After examining several particular cases (for instance, the case of a symmetrical bridge system $R_1 = R_2 = R$, $C_1 = C_2 = C$), the authors draw the following conclusions as to the properties of the double-T bridge, considering the effect of generator and load parameters. 1) The double-T bridge (in real systems) possesses yemetrical amplitude-phase characteristics only when a definite relationship exists between the parameters of the generator, of the load and of the bridge. 2) Symmetrical characteristics of the bridge are obtained only if the load and the generator internal impedance are both either purely resistive or purely capacitive, or when they are both resistive-capacitive. Any mixed case leads to unavoidable asymmetry. 3) The selectivity of a selective amplifier with a double-T bridge is much worse, at a great detuning, than it was generally supposed. There are 7 figures and 7 references: 4 Soviet-bloc and 3 non-Soviet-bloc. The references to English-language publications read as follows: Cowles, The parallel - T resistance-capacitance guage publications result as lollows; Control Parallel-T network. "Wireless Engineer", Notwork. Proc. IRE, 1952, no. 12; Buckley, Parallel-T network.

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Properties of the double-T bridge ...

1956, no. 7; Yosiro Oono, Design of parallel-T resistance-capacitance network. Proc. IRE, 1955, no. 5.

December 12, 1960 SUBMITTED:

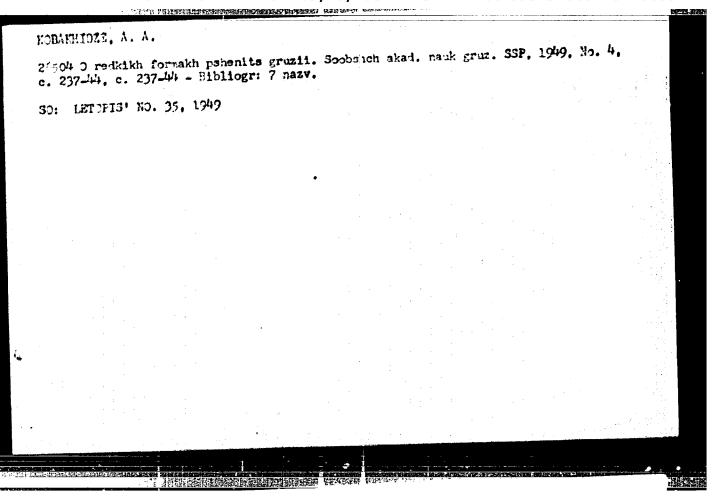
[Abstracter's note: The following subscripts are translated in the text and formulae: 1 (load) stands for H; gen (generator) stands for F or 2.]

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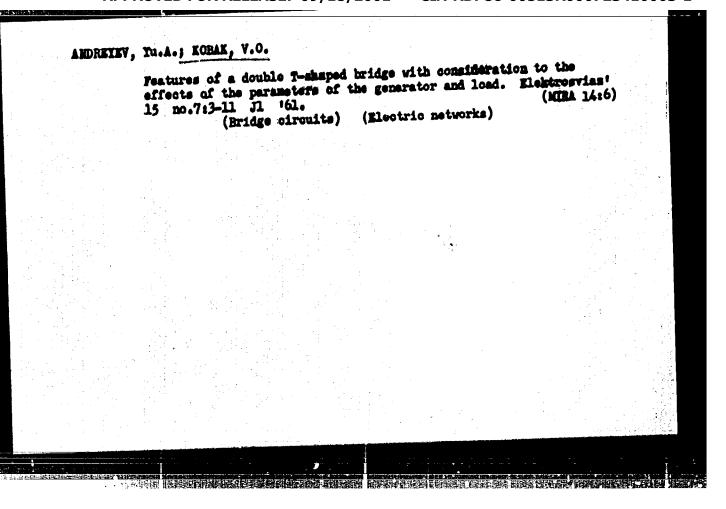
Whence thems of Engineers and Tochnicians in the Potralous Is a try, p. 172, (METT, Vol. 10, No. 7, July 1954, Krakew, Folond)

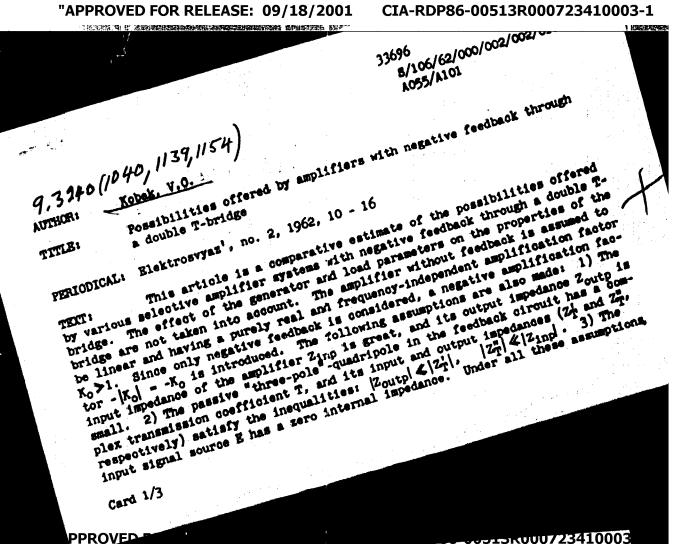
Not Monthly Li t of Fest Europein Accessions, (MML), No. 5, Nay 1955, Uncl.

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KOBAKHIDZE, A. G. = The theory for the reduction of manganese oxides to MnO, A Kobakhidze, A. G. = The theory for the reduction of manganese oxides to MnO, A Kobakhidze, A. G. = The theory for the reduction of manganese oxides to MnO, A Kobakhidze, A. G. = The theory for the reduction of manganese oxides to MnO, A Kobakhidze, A. G. = The theory for the reduction of manganese oxides to MnO, A Kobakhidze, A. G. = The theory for the reduction of manganese oxides to MnO, A Kobakhidze, A. G. = The theory for the reduction of manganese oxides to MnO, A Kobakhidze, A. G. = The theory for the reduction of manganese oxides to MnO, A Kobakhidze, A. G. = The theory for the reduction of manganese oxides to MnO, A Kobakhidze, A. G. = The theory for the reduction of manganese oxides to MnO, B A Kobakhidze, A. G. = The theory for the reduction of manganese oxides to MnO, B A Kobakhidze, A. G. = The theory for the reduction of manganese oxides to MnO, B A Kobakhidze, A. G. = The theory for the reduction of manganese oxides to MnO, B A Kobakhidze, A. G. = The theory for the reduction of manganese oxides to MnO, B A Kobakhidze, A. G. = The theory for the reduction of manganese oxides to MnO, B A Kobakhidze, A. G. = The theory for the reduction of manganese oxides to MnO, B A Kobakhidze, A. G. = The theory for the reduction of manganese oxides to MnO, B A Kobakhidze, A. G. = The theory for the reduction of manganese oxides to MnO, B A Kobakhidze, A. G. = The theory for the reduction of manganese oxides to MnO, B A Kobakhidze, A. G. = The theory for the reduction of manganese oxides to MnO, B A Kobakhidze, A. G. = The theory for the reduction of manganese oxides to MnO, B A Kobakhidze, A. G. = The theory for the reduction oxides to MnO, B A Kobakhidze, A. G. = The theory for the reduction oxides to MnO, B A Kobakhidze, A. G. = The theory for the reduction oxides to MnO, B A Kobakhidze, A. G. = The theory for the reduction oxides to MnO, B A Kobakhidze, A. G. = The theory for the reduction oxides to MnO, B A Kobakhidze, A. G. = The





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A055/A101 Possibilities offered by amplifiers with the author examines five possible ways of inserting E into the amplifier oirquit (Fig. 1) and determines the overall amplification factor for different combinations of E and of the output voltage U, i.e., he determines:

 $K_1 = U_n/E_n$ at $\binom{n-1}{n-1}, 2, 3, 4, 5$

Right formulae (giving K1, K2 ... Kg for each of these eight combinations, respectively) are thus obtained. The author passes next to the case when a double T-bridge is used as the "three-pole" in the feedback circuit. He deduces six formulae giving, in this case, the scalar saplification factor for the fist six combinations, i.e., |K1| to |K6|, and discusses these formulae. He also calculates the scalar amplification factor [Kg] for a special case, when B is inserted into the "middle" of the amplifier, as shown in Figure 5. At the end of the article, the author reproduces the diagrams of four of the most interesting practical realizations of one-stage selective amplifiers with a double T-bridge in the feedback circuit, and briefly discusses these diagrams. There are 6 figures, and 9 references: 7 Soviet-bloc and 2 non-Soviet-bloc. The English-language reference reads as follows: Ward, Landshoff, Parallel - T RC selective amplifiers. Electronic and Radio Engineer, v. 35, no. 4, 1958. The Soviet authors and scientists mentioned in the article are: L.S. Gutkin, Yu.G. Kochinev, R.Ya. Berkman, Yu.I.

ANDREYEV, Turiy Aleksandrovich; KOBAK, Valeriy Oskarovich;
MICHURIN, V.I., kand. tekhn. nauk, retsenzent; APTEKPAN,
M.A., red.; TSAL, R.K., tekhn. red.

[Double T-shaped bridges in selective amplifiers]Dvoinye T-obrasnye mosty v isbiratel'nykh usiliteliakh. Leningrad, Sudprongis, 1962. 103 p. (MIRA 15:9) (Amplifiers, Electron-tube) (Bridge circuits)

(Microwave Journal, 1960, no. 11), by C. G. Bachman et al. (Microwave Journal,

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1963, nos. 2-3), and by other researchers. The model performs a reciprocating (sinusoidal-law) motion along the signal-transmission line. The required tuning

frequency can be determined from this formula: $T = \frac{4\epsilon S_0}{F_{em} k \sqrt{2}}$; the required pass-

band of the receiving channel is: $\Delta F_{0,7} > 2 \sqrt{\frac{nF_0}{T}} = F_0 \sqrt{\frac{1.41\lambda}{S_0}}$. Here: T -

reciprocating-motion period; S_0 - motion amplitude; S_{000} - amplifier resonance frequency; $Q_0 = F_0/\Delta F_{0.7}$ - equivalent Q-factor of the frequency-selective amplifier; λ - wavelength. A numerical example illustrates the use of the above approximate formulas. Orig. art. has: 2 figures and 10 formulas.

SUB CODE: 09 / SUBM DATE: none / ORIG REF: 005 / OTH REF: 003

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